

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/857,372E
Source: IFW/6
Date Processed by STIC: 7-12-05

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 07/12/2005

PATENT APPLICATION: US/09/857,372E

TIME: 10:45:11

Input Set : A:\Jab1430.app

Output Set: N:\CRF4\07122005\I857372E.raw

```

3 <110> APPLICANT: CONTRERAS, ROLAND HENRI
4     NELISSEN, BART
5     DE BACKER, MARIANNE DENISE
6     LUYTEN, WALTER HERMAN MARIA LOUIS
7     VIAENE, JASMINE ELZA
8     LOGGHE, MARC GEORGE
9     VIALARD, JORGE EDUARDO
11 <120> TITLE OF INVENTION: DRUG TARGETS IN CANDIDA ALBICANS
13 <130> FILE REFERENCE: JAB-1430
15 <140> CURRENT APPLICATION NUMBER: 09/857,372E
16 <141> CURRENT FILING DATE: 2001-06-04
18 <150> PRIOR APPLICATION NUMBER: PCT/EP99/09833
19 <151> PRIOR FILING DATE: 1999-12-06
21 <150> PRIOR APPLICATION NUMBER: EP 98204122.0
22 <151> PRIOR FILING DATE: 1998-12-04
24 <160> NUMBER OF SEQ ID NOS: 24
26 <170> SOFTWARE: PatentIn Ver. 3.3
28 <210> SEQ ID NO: 1
29 <211> LENGTH: 438
30 <212> TYPE: DNA
31 <213> ORGANISM: Candida albicans
33 <400> SEQUENCE: 1
34 aacagctggt cttctgctaa tacattcaac ctttccata tctatactcc aacaatatga 60
35 taactgatga acaattgaat accattgcat tgacatttgg ttttgcttca ataataattaa 120
36 tcataatata tcatgccata tctactaatg tacataaatt agaagatgaa accccatcat 180
37 cttcatttac cagaacaaat actactgaaa ctactgttgc aagtaagaaa aagaagtaat 240
38 aactgatgga ttttcttcc taccaccaat tgaataatgc tagacttggt ggtgtgctac 300
39 aaatatttca aaagaaaata cgaatacttt ataaaatggt aagaacggaa gatggtttct 360
40 catttataca ctaaatacaa atcacatata catacacaaa cacaataata tacatacacc 420
41 tatatccctt tatttgat                                     438
44 <210> SEQ ID NO: 2
45 <211> LENGTH: 1380
46 <212> TYPE: DNA
47 <213> ORGANISM: Candida albicans
49 <400> SEQUENCE: 2
50 atgttataaaa cactaaactca aactttacgc ttaactggga aagctttccc aaaggtccgt 60
51 ccggccttga tcagaacctc cgctgccttc gaccgttcta aacctcatgt caacattggt 120
52 actattgggtc atgttgatca tggtaaaact acattgactg ctgctatcac caaagtitta 180
53 gccgaacaag gtggtgccaa cttcttggat tatggttcta ttgatagagc tccagaagaa 240
54 agagctagag gtatcactat ttccactgcc cacgttgaat acgaaaccaa gaacagacac 300
55 tatgcccacg ttgattgtcc aggacacgct gattatatca aaaatatgat tactggtgcc 360
56 gctcaaatgg atggtgctat cattgttggt gctgccactg atggtcaaat gcctcaaacc 420
57 agagaacatt tgttattggc cagacaagtt ggtgttcaag acttggttgt gtttgtcaac 480

```

RAW SEQUENCE LISTING

DATE: 07/12/2005

PATENT APPLICATION: US/09/857,372E

TIME: 10:45:11

Input Set : A:\Jab1430.app

Output Set: N:\CRF4\07122005\I857372E.raw

```

58 aaagtcgata ctattgatga ccctgaaatg ttggaattag tcgaaatgga aatgagagaa 540
59 ttgttatcca cctacggttt tgatgggtgac aacactccag ttattatggg atctgcttta 600
60 atggcctttg aagacaagaa accagaaatt ggtaaggaag ctatcttgaa attgttagat 660
61 gctgtcgatg aacacattcc aactccatca agagacttgg aacaaccatt tttgttacca 720
62 gttgaagacg tgttctccat ctccggtaga ggaactgttg tcaactggtg agttgaaaga 780
63 ggtgttttga agaagggtga agaaatcgaa attgttgggt gttttgacaa accttacaag 840
64 actactgtta ccggtattga aatgttcaaa aaagaattag actctgctat ggctgggtgac 900
65 aactgtgggtg tttgtttaag aggtgttaaa agagatgaaa tcaagagagg tatgggtttg 960
66 gccaaaccag gtactgctac ttctcacaag aagtctcttg cttccttgta tattttgact 1020
67 tccgaagaag gtggtcgttc cactccattt ggtgaagggtt acaagcctca atgcttcttc 1080
68 agaactaacg atgtcactac cacattttca ttcccagaag gagaagggtg tgatcattct 1140
69 caaatgatca tgccagggtg caacattgaa atgggttggtg aattgatcaa atcttgtcca 1200
70 ttagaagtca accaacgttt caacttgaga gaagggtgta aaactgttgg tactgggttg 1260
71 attaccagaa tcatcgaaata aacagaatgt gcactgtgaa taataaaaag aaaagaggta 1320
72 tatatagggtg actttgtatt ttgtattgaa caataaaatt ctgtaaatag taagggcctc 1380
75 <210> SEQ ID NO: 3
76 <211> LENGTH: 2283
77 <212> TYPE: DNA
78 <213> ORGANISM: Candida albicans
80 <400> SEQUENCE: 3
81 gaattcgccc ttaagcactc gtttcaacta tacattcagt aacaacaccc ttaattttacc 60
82 aaactacatt aatggaagta acacaacgga cgcagagtca gacacaacca acacaacagt 120
83 caccgacaac tcagacgcaa acccaaagca aagaggacca gaataggatt tgtcaattga 180
84 tttgtccac gggtcagttt ggcaattatg atttgaatat caacgataaa actatcgtag 240
85 aaggtaaaaat gacgtgggtat tttggaagag accccaactc agatttgcaa gtggcgctcg 300
86 cgctcgagaat ttcaaacaag cattttcaaaa tctggctcaa cttcaatgat aaatcactat 360
87 ggataaagga cacttcaact aacgggacac accttaacaa cagtcgattg gtgaaaggat 420
88 caaactacct tcttaatcag ggtgatgaaa tagcagtagg ggttggtaga gacgaggacg 480
89 ttgtgaggtt tgtcgttgct tttggtgaca aatacaaccc ggcaaagcta cctgattcga 540
90 ccaacacaat taaagatgaa ggaatataca aagactttat tgtgaaaaat gaaacgatag 600
91 gccaaaggagc atttgccact gtgaaaaagg cgattgaacg atctacgggc gagtcgtacg 660
92 cgggtgaagat tataaatcga agaaaagcat taaataccgg tgggtggaagt gccatggcag 720
93 gagtggaccg tgaattgtcc atattagagc ggctcaacca cccaaatata gttgctctaa 780
94 aagcttttta tgaagatatg gacaattact atattgtgat ggaattgggt ccgggcgggtg 840
95 atttgatgga ctttgtggct gcaaacggtg caataggaga agacgcaaca caagtgatca 900
96 cgaaacagat tctagaagga attgcctatg ttcataattt aggaatctcc catcgtgatt 960
97 tgaagccaga taatattttg attatgcaag atgacccaat acttgttaaa atcaccgact 1020
98 ttggattggc aaaattcagt gacaatctga cgtttatgaa aactttttgt ggtacattgg 1080
99 cgtatgttgc tcccgaagtt atcaccggta agtatggatc atcgagatg gaactgcaac 1140
100 aaaaggacaa ctactcttcc ttggttgaca tttggtcttt gggatgtttg gtttatgtac 1200
101 ttttaacttc tcattacca ttcaacggga aaaaccagca acaaatgttt gccaaagatca 1260
102 aaaggggcga atttcatgag gctccattaa attcatacga catttctgaa gacggaagag 1320
103 atttcttgca gtgctgccta caggttaatc cttaaactaag gatgacggct gctgaagctt 1380
104 tgaacataa atggttgcaa gacttgtatg aagaggattc tgtcaaatca ttgagtttat 1440
105 cgcaatcaca gtcgcaacaa tctcgaaaga tagataatgg tatccatata gaatcattga 1500
106 gcaaaattga tgaagacgtt atgcttcgtc cattggatag cgaaagaaat aggaaatcaa 1560
107 gtaaacagca agatttcaag gtacccaagc gtgtgattcc gttatctcaa catcctgcaa 1620
108 caccgttacc aatgtcacia ccgaaaaaga ggccgtatca aatagaccct agaacaaaca 1680
109 aaaaagtcga tttggaagaa cctctgacaa gcaagaaagt caagctaagt gattccgttg 1740

```

RAW SEQUENCE LISTING

DATE: 07/12/2005

PATENT APPLICATION: US/09/857,372E

TIME: 10:45:11

Input Set : A:\Jab1430.app

Output Set: N:\CRF4\07122005\I857372E.raw

```

110 ttgcggaaga ctacttgaag ttggggccac ttgcaaattc gttattccaa gaaacaataa 1800
111 atattttcaaa gtccccgttt tctttcggaa gaaatgacac ttgtgattgc gagatagacg 1860
112 acgacagact atccaaactt catttgtgtca ttaccaaaga aaacgactct atatggttat 1920
113 tggataagag tactaactcg tgcttggtca acaatactag tgttgaaaaa ggcaacaaag 1980
114 ttttgcttag aggaggggag atattacatc tcttctttga cccattgtca ctgcaacata 2040
115 taggtttcaa agtagtcctt gttgatcaac tgtctggtga acataagagt caagtggagg 2100
116 ttttgaacaa aacctcagaa gaaatgaata ttattccact tatttctggt ttaagtagta 2160
117 taagttcata gatttagcat atatacaagc atttcctata gaaacaaagg ttcattaatt 2220
118 tagttattta cctccatgca attacattta cttcttcttc caagggcgaa ttctgcagat 2280
119 atc 2283

```

122 <210> SEQ ID NO: 4

123 <211> LENGTH: 826

124 <212> TYPE: DNA

125 <213> ORGANISM: Candida albicans

127 <400> SEQUENCE: 4

```

128 atgggtagta tgtgaagata caatattgaa agtgtttact agaatatcta agatgtttga 60
129 gcccattggac atttttggat ttgataatta aaaaaagtag caatagatta ttgcgttggg 120
130 gaaagaatca ccatagtgtc aagatttgc agatgttaaa atgttcacgc aggcgaaaga 180
131 tgtaacatct cttaaagtaa gaagaatatg gacatgaata aaaatagata gcactatttt 240
132 ggaacttggt gaagatatta aaatagaatg ggatttcaac atagatattc aaagtaacga 300
133 aacctcacia tcaataaaaa acaacagtaa tactaacaat tcaattttta tttttataga 360
134 gggactcca tctttaggtta aacgtcacaa caaatctcac accttatgta acagatgtgg 420
135 ccgtcgttca ttccacgtcc aaaagaagac ctgttcttct tgtggttacc cagctgctaa 480
136 aatgagatct cacaactggg ccttaaaagc caaaagaaga agaactactg gtaccggtag 540
137 aatggcttac ttgaaacacg ttaccagaag attcaagaac ggtttccaaa ctggtgttgc 600
138 taaagctcaa accccttccg cttaaactaa ttactgaagt tattggtcat gcattagtca 660
139 ttattcatta aagtcattgt aagcatagca aaggaagaat tggtagatt cttgtttaaa 720
140 atgtaatgac tatttaatat ctgtttaaat aagaggttta gtctttattt ttttacgtat 780
141 acaccaaaaa aaaaagaaac aaataaaatc tgtatattaa tgttgg 826

```

144 <210> SEQ ID NO: 5

145 <211> LENGTH: 978

146 <212> TYPE: DNA

147 <213> ORGANISM: Candida albicans

149 <400> SEQUENCE: 5

```

150 atgggtacta gtacaagtga agcattgaag aacatcaaaa acaaacagcg aagacagaaa 60
151 gtttttgtag aaataaaaaca tgaaaagaat aaacaacgtc ataagcaaag agccgaaaga 120
152 gctaagggaag aaagagaaaaa ccccgaatta agagaggaaa gaatagcagc taatatccca 180
153 gatactatag atagcaaacg tatttatgat gagactatag ctgctgaagt tgaaggagat 240
154 gacgagtttc agtcatattt cactaacttg ttggaagaac caaagatttt gttgacaaca 300
155 agtgccaatg ctaaaaaacc ggcctatgaa ttgcagaca tgatcatgga ctttttaccg 360
156 aatgtgacat ttatcaaaaag gaagaaggaa tatacaatgc aagatatggc caaatattgc 420
157 tcgaatagag acttcaactgc attgcttgtc atcaacgaag acaagaagaa ggtcaatggg 480
158 ataacgtc tcaattttacc tgaagggcc aacattttatt tttcgattac atcaatagtt 540
159 gatgggaaaa gaattaaggg acacgggaaa gctggtgatt atttacctga gattgtattg 600
160 aataatttca attcaagatt gggtaaaact gtgggaagac tatttcaaag tattttccct 660
161 cataaacctg aacttcaagg aagacaagtg attactttgc acaatcaacg tgattatatt 720
162 tttttcagaa gacatagata ttttttcaga aatgaggaaa aggttggtg gagggaattg 780
163 ggtccgcagt ttacattaaa gctaagaaga atgcaaaagg gagtacgtgg tgatgttgtt 840
164 tgggaacaca gaccagatat ggaaagagat aagaagaagt tttatttata agcgggtgta 900

```

RAW SEQUENCE LISTING

DATE: 07/12/2005

PATENT APPLICATION: US/09/857,372E

TIME: 10:45:11

Input Set : A:\Jab1430.app

Output Set: N:\CRF4\07122005\I857372E.raw

```

165 taaaggtagt agtagtgcgt ttataagtat gtgtgtgtgt ttatgcatag atgtgtaaag 960
166 agtaatacag ctaattcg 978
169 <210> SEQ ID NO: 6
170 <211> LENGTH: 619
171 <212> TYPE: DNA
172 <213> ORGANISM: Candida albicans
174 <220> FEATURE:
175 <221> NAME/KEY: modified_base
176 <222> LOCATION: (597)..(598)
177 <223> OTHER INFORMATION: a, c, t or g
179 <220> FEATURE:
180 <221> NAME/KEY: modified_base
181 <222> LOCATION: (613)
182 <223> OTHER INFORMATION: a, c, t or g
184 <400> SEQUENCE: 6
185 aactaatttg tttaaaccatc aataccaaga agttttttaca attcaatccc acatacacca 60
186 ttaattatga attctgaaaa gattattgaa gttatcattg ctatttttctt accaccagta 120
187 gctgtgttta tgaaatgtgg tgccactacc ccattatgga ttaacttggt attatgtatc 180
188 ttattttggt tccctgctat cttacatgcc ttatacgttg gtttgaaaga ttaaaccaaac 240
189 accagagatt tactgcttga tgaattgatt actccaaaga gttgtgacta gttcccagtg 300
190 tgtttttttt gccttccaac tttcttttac atttttccat tactaccact gtcttcccc 360
191 ctattttgca gagttttcaa aatttatcca aaacatgta gtcattaaac catattatta 420
192 taattattct tttttgtatt tttttccctt aaaacacggt aatttattaa tcgtttcgtt 480
193 gtttgggtatt ttattttttt gtatttatca attggaatat atatctatac atgaatttat 540
W--> 194 tatccattgt accaattggt aaaacatttt gtttagttttt tgttactagt ataaaannat 600
195 aataaaaagtt tanttcaac 619
198 <210> SEQ ID NO: 7
199 <211> LENGTH: 2319
200 <212> TYPE: DNA
201 <213> ORGANISM: Candida albicans
203 <400> SEQUENCE: 7
204 atgacattag ggttcgataa attcataagc aaggtcagca ctcatagacg tcaatctgaa 60
205 ccatcaatct tggaaatcgc agccaccaat tctcaaaaata aatcgagaag gctaagtatg 120
206 gataatggtc attgttatgt tcgtgaatca actaataatc atcatcattt aaataaccgtc 180
207 gttgataatt tacgacagcg tgcgggatcg ttttcattta tttcacatca ccataatcac 240
208 catcagaata gtcacgataa ttatactgtc gatcccccta catcaaacgg agcacgaatt 300
209 tccccgatcac gttcacgttc caaatcagtt gggcacggag aagcaatatc accagcgtat 360
210 ttttccaaga ataaaaccaa agatttagtg aaacaggaaa cagcacatat cattctgaag 420
211 aaattactca acatgttaca agatttgat ttacaaaacc ctattgcatt gaaaacaata 480
212 tcacaagggtt cagaatcaaa gttttgtaaa atctacgtgt ctaacactaa taattgtatt 540
213 tacttaccag cagcaagttc aacaagtttc acttatgaag atgatgaaaa tggcggcgtt 600
214 ataattgctg aagatagaaa tgatgaaatg ccaacagcag ttaataacaa tactttgtca 660
215 atggatagta taaatcattc agagactgat ttcctggatt ctccaccacc tccagattta 720
216 ttttctaaaa tgaaatcatt ccattcacca aattacttga cttcaaaaat cgattctgaa 780
217 tgtccaattc cacatacatt tgctgtgatt gttgaattaa ccaaggactc tttgattatt 840
218 aaagatcttc atttccaatt tcagtcatta actaccattt tatggccaac tggggatgca 900
219 tataatcgga ctcatgccaa ggagaaattt accattggga atatggaatg gcgtacatct 960
220 ttaagcgacg ccgactatta tatcaatagt tctaattcca acgatgttaa gctgaaaaac 1020
221 ttgggtcctg aagatcttat taatcgaact agagaataca aattaatcga tattgaagaa 1080

```

RAW SEQUENCE LISTING

DATE: 07/12/2005

PATENT APPLICATION: US/09/857,372E

TIME: 10:45:11

Input Set : A:\Jab1430.app

Output Set: N:\CRF4\07122005\I857372E.raw

```

222 ccaaacaatt catcaaacag tttactggat gatgacatgg atattaataa tattacgtcg 1140
223 ccattatcaa cgtcaccaac atcaagttca acttcaacaa attcaacctc caactcattg 1200
224 ggttcagatt catataaagc tgggtctttat gtattttttat taccaatctt attgccagaa 1260
225 catattcctg cttccattgt ttctattaat gggtcattgg ctcatacatt actgggtgaa 1320
226 tgcaataaat atactgataa gttgaatcgg aaatcaaaaag tatcagcatc gtacaattta 1380
227 cctatgggcc gtactccacc aaacattggg aattccattg ctgataagcc aatttatggt 1440
228 aataggattt ggaatgatgc cgtacattat attataaactt tccccgcaa atatgttact 1500
229 ttgggttggtg aacacatgat aaatgtgaaa ttactgccca tgggtgaaaga tgtgggttatc 1560
230 aagcgtatta aatttaaatgt attggagaga ataacttatg tttccaaaaa tttatcacga 1620
231 gaatatgatt atgatatgta agacccttat tgtattcatc cagttttctaa agaaaataaa 1680
232 gtacgtgaac gtgttggtgc gttatatgaa ttgaaaacga aggcaaaaca atcttctggt 1740
233 ggacatcttg aagcttataa acaagaagtt atgaaatgtc cggaataaa cctttttattt 1800
234 tcttggttatg aggttgaaaa tgataataat aacggcaacg gcaacggcaa cggcaacgga 1860
235 aacaagaacg ttaaacaaaa gaataaagat caaccaatga ttgctacacc tttagatatac 1920
236 aatgtttctt taccattttt aactactatg tctgatagtt taattatgac atcagccata 1980
237 gaagaagaag gttcagatct gcctcatata tcaagaagag ggtcggcagt gagtatgact 2040
238 gataataata ctacccaag taacaataac cctttatctc catttttggg agcagtggaa 2100
239 actaatgggtg ctagtataaa tgaaattggt gatcatacat tattccctga ttctaatttt 2160
240 cgacatattg aaattaaaca tcgattacaa gttacattta ggattttctaa accggatctg 2220
241 gataataaaa tgcataatta tgaagtgggt attgataccc ccatcgtttt acttagttca 2280
242 aaatgtcaag aagattctcc tcctccttat agttctgta 2319

```

245 <210> SEQ ID NO: 8

246 <211> LENGTH: 255

247 <212> TYPE: DNA

248 <213> ORGANISM: Candida albicans

250 <400> SEQUENCE: 8

```

251 aacgttcgtg caaaaggcta tactgggtgat atccacgcag atgaagagca agtttaataca 60
252 actctttgtc aattaatgct gtacttgttt tcatttttatt tgctggcatt taaagaatac 120
253 ccatagttca gaaaataaaa ttgaaaaatt taaaaaaaaa cgcaatatca ttcattttttt 180
254 ttgttttttt gacaataata ttaatatgta gttaccaatg tttttagatt ttatatgttt 240
255 tgaaaaaata gtttg 255

```

258 <210> SEQ ID NO: 9

259 <211> LENGTH: 119

260 <212> TYPE: DNA

261 <213> ORGANISM: Candida albicans

263 <220> FEATURE:

264 <221> NAME/KEY: modified_base

265 <222> LOCATION: (45)

266 <223> OTHER INFORMATION: a, c, t or g

268 <400> SEQUENCE: 9

```

W--> 269 aaccttaciaa tcattatacc aactatcaaa atcataagac tcttnaactt ctgtttttga 60
270 tagttgggtat aatgatttat gtattatctt aattcattat tattagtttc ggtcacaaa 119

```

273 <210> SEQ ID NO: 10

274 <211> LENGTH: 60

275 <212> TYPE: PRT

276 <213> ORGANISM: Candida albicans

278 <400> SEQUENCE: 10

```

279 Met Ile Thr Asp Glu Gln Leu Asn Thr Ile Ala Leu Thr Phe Gly Phe
280 1 5 10 15

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/857,372E

DATE: 07/12/2005
TIME: 10:45:12

Input Set : A:\Jab1430.app
Output Set: N:\CRF4\07122005\I857372E.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; N Pos. 597, 598, 613 ✓

Seq#:9; N Pos. 45 ✓

VERIFICATION SUMMARY

DATE: 07/12/2005

PATENT APPLICATION: **US/09/857,372E**

TIME: 10:45:12

Input Set : **A:\Jab1430.app**Output Set: **N:\CRF4\07122005\I857372E.raw**

L:194 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:540

M:341 Repeated in SeqNo=6

L:269 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0